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No. 96-645

Supreme Court, U.S.
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IN THE
Supreme Court of the United States
OCTOBER TERM, 1996

SUBARU OF AMERICA, INC., and
FUJI HEAVY INDUSTRIES, LTD.,
Petitioners,

v.

STEVEN D. COMPTON,
Respondent.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Tenth Circuit

BRIEF AMICI CURIAE OF THE PRODUCT LIABILITY ADVISORY COUNCIL, INC., AND NATIONAL ASSOCIATION OF MANUFACTURERS IN SUPPORT OF PETITIONERS

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INTEREST OF AMICI CURIAE

The Product Liability Advisory Council, Inc. ("PLAC") is a nonprofit corporation with 114 corporate members from a broad cross-section of American industry, and the product liability lawyers who represent them. Its corporate members include manufacturers and sellers in industries ranging from electronics to automobiles to pharmaceutical products and medical devices.[1] PLAC's purpose is to file *amicus* briefs on behalf of its members on issues that affect the law of product liability. PLAC has submitted many *amicus* briefs in state and federal courts, including this Court.

The National Association of Manufacturers (the "NAM") is the nation's oldest and largest broad-based industrial trade association. Its more than 14,000 member companies and subsidiaries, including 10,000 small manufacturers, employ approximately eighty-five percent of all manufacturing workers and produce over eighty percent of the nation's manufactured goods. More than 158,000 additional businesses are affiliated with the NAM through its Associations Council and National Industrial Council. The NAM's interest on issues that affect the law of product liability is identical to the interest of PLAC.

In this case, *Compton v. Subaru of Am., Inc.*, 82 F.3d 1513 (10th Cir. 1996), *reh'g denied*, the United States Court of Appeals for the Tenth Circuit ruled that the factors set forth in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993) for the analysis of admissibility of expert opinion testimony, do not apply to an aerospace and mechanical engineer whose opinion is based solely upon his experience or training, rather than application of recognized engineering methodology. Respondent's Opposition Brief clearly states why the Tenth Circuit deemed *Daubert* inapplicable to the expert's testimony:

> Much of Bihlmeyer's knowledge is based on scientific principles (force dynamics, strength analysis, strength of materials), however, his conclusions are not derived by the scientific method . . ..

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[1] A list of PLAC's corporate members appears in the appendix hereto.

See Respondent's Opposition Brief, p. 17. This statement crystallizes the exact question that is before the Court: Should an engineering expert's opinion involving scientific principles, *vis,* the force dynamics, strength analysis, and strength of materials of an automobile roof, be admitted when the opinion was not derived by scientific methodology?

Amici curiae are well-situated to address this issue. Our members are subject to defending an increasing number of product liability lawsuits. These are suits which require plaintiffs to produce admissible expert testimony in order to prove a prima facie case. The expert testimony is most often in areas of applied science or technology, rather than "pure" science. PLAC and NAM members are often faced with unreliable expert testimony admitted by courts applying inconsistent standards; these inconsistent standards impair the ability of manufacturers to test the reliability of an expert's opinion, and consequently to defend against plaintiffs' allegations of product defect and the like. Amici curiae offer a valuable perspective on why the circuit and district courts need this Court's guidance on the application of *Daubert,* and why the clear incentive offered by *Compton*—for experts purposefully to forego utilizing any recognized methodology as the basis of their opinions, instead relying solely on training and experience so as to avoid the *Daubert* reliability analysis, yielding a greater chance of getting unsound opinions to the jury—must be avoided.[2]

SUMMARY OF ARGUMENT

A. *Compton* and its progeny are in direct conflict with the Court's holding in *Daubert* and decisions from other circuits, resulting in confusion to trial courts, litigants and jurors; the Court should accept Petitioners' Petition for A Writ of Certiorari to give much needed direction and end this confusion.

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[2] The Parties' written consent to the submission of this brief is on file with the Court.

B. This Court should grant the Writ to explicitly hold that Rule 702 and *Daubert* apply to expert testimony in a well-defined field of endeavor encompassing recognized analytical methodology or techniques.

ARGUMENT

I. *COMPTON* AND ITS PROGENY ARE IN DIRECT CONFLICT WITH THE COURT'S HOLDING IN *DAUBERT* AND DECISIONS FROM OTHER CIRCUITS, RESULTING IN CONFUSION TO TRIAL COURTS, LITIGANTS AND JURORS

In *Daubert* this Court granted certiorari "in light of sharp divisions among the courts regarding the proper standard for the admission of expert testimony." *Daubert*, 509 U.S. at 585. *Daubert* set forth a flexible paradigm for courts to use in the analysis of admissibility of proffered expert testimony. The *Daubert* framework starts from the assumption that the expert's opinion has a reliable basis in knowledge and experience; it does not end there. 509 U.S. at 592. Despite the Court's holding in *Daubert*, some lower courts have created a narrow box for the application of the *Daubert* analysis into which only novel scientific opinions are put. Outside that box some courts have admitted expert opinion testimony without scrutinizing it as directed by *Daubert*. This case is an example. Implementation of the teaching of *Daubert* directs that such scrutiny should be so extended to expert opinion in well defined fields of endeavor which utilize recognized analytical methodology or techniques, but the Tenth Circuit decided otherwise. The sharp division among the courts as to the standard of analysis applicable to expert testimony in the arena of applied sciences and expert opinion relying solely on experience or training rather than recognized methods and techniques, demands resolution through a grant of Petitioners' Petition for a Writ of Certiorari.

The Tenth Circuit's misapprehension of *Daubert* is crystallized in these words from its *Compton* opinion:

> The language in Daubert makes clear the factors outlined by the Court are applicable only when a proffered expert relies on some principle or methodology. In other words, application of the Daubert factors is unwarranted in cases where expert testimony is based solely upon experience or training. *See, e.g., U.S. v. Rice,* 52 F.3d 843, 847 (10th Cir. 1995) (citing Daubert but applying a traditional rule 702 analysis to tax attorney's expert testimony which was based upon his personal experiences). In such cases, Rule 702 merely requires the trial court to make a preliminary finding that proffered expert testimony is both relevant and reliable while taking into account "the inquiry envisioned by Rule 702 is . . . a flexible one." Daubert, 113 S.Ct. at 2795-97.

Compton, 82 F.3d at 1518-1519. The Tenth Circuit later stated, "In sum, we do not believe Daubert completely changes our traditional analysis under Rule 702. Instead, Daubert sets out additional factors the trial court should consider under Rule 702 if an expert witness offers testimony based upon a particular methodology or technique." *Id.* at 1519. We have scoured the *Daubert* opinion and find no such authority there.

There is no question that the expert in this case, Larry Bihlmeyer, based his opinion on subjective belief or unsupported speculation. The trial court said Bihlmeyer had "the most ill-supported weakest personal opinion" he ever heard. Yet the Tenth Circuit affirmed the admission of his testimony because he "possessed the basic qualifications to give such testimony," and "reached his expert conclusions by drawing upon general engineering principles and his twenty-two years of experience as an automotive engineer." 82 F.3d at 1519. The Tenth Circuit stated *Daubert* "simply has little bearing on Mr. Bihlmeyer's testimony" because he did not employ "some particular methodology or technique." *Id.* In short, the Tenth Circuit confuses the requirement that the expert have certain credentials with the requirement that the expert arrive at his opinion uilizing a methodology recognized by his field.

It is not correct to suggest, as Respondent does in his Opposition Brief, that the trial court's admission of Bihlmeyer's testimony was a factual decision, as opposed to a resolution of a question of law. The courts' gatekeeper role requires a preliminary *legal* determination that the expert has satisfied the requirements of Rule 702. *See, e.g., Daubert v. Merrell Dow Pharmaceuticals, Inc. (Daubert II)*, 43 F.3d 1311, 1319 (9th Cir. 1995) ("Dr. Palmer's testimony is inadmissable as a matter of law under Rule 702.") The *Compton* court acknowledged that the "applicability of Daubert is a question of law," 82 F.3d at 1517, and proceeded to decide that, as a matter of law, *Daubert* does not apply to an expert engineer's testimony that an automobile roof was defectively designed. It is *this* legal question that is before the Court.

Compton has created a refuge for the expert whose opinion will fail if subjected to recognized analytical testing methods employed in the field. Faced with the alternatives—the *Daubert* scrutiny verses the *Compton* refuge —experts are encouraged to rely on their expertise and training, rather than subjecting the opinion to the rigors of scientific methodology.

Product liability cases almost always involve expert testimony of an engineering or scientific nature, without which the plaintiff's proof is lacking. These experts have well-defined fields of expertise, employing well-recognized analytical methodology. Courts do a disservice when unreliable "expert" opinion is placed before a lay jury:

> [w]hen an expert merely states an opinion on an ultimate issue without adequately exploring the criteria upon which the opinion is based, the jury is provided with no independent means by which it can reach its own conclusion or give proper weight to the expert testimony.

United States v. Simpson, 7 F.3d 186, 188-89 (10th Cir. 1993).

The demands placed on the jury are heavy enough without imposing the added burden of determining the legal issue of the reliability of evidence; as was stated in

Brown v. Miska, 1995 U.S. Dist. LEXIS 17197 at *11 (S.D. Tex. 1995), *aff'd without op.*, 96 F.3d 1445 (5th Cir. 1996):

> The safety characteristics, design, and manufacture of automobile seatbacks and recliner mechanisms are not subjects with which the ordinary citizens . . . are customarily knowledgeable and familiar. Not surprisingly, defective product cases of this variety cannot reach the jury unless the defect claim is supported by qualified expert testimony.

A. *Compton's* Progeny Promotes Confusion

Compton is not the only lower court demonstrating confusion with respect to the applicability of *Daubert*. *Compton* was followed in *Liriano v. Hobart Corp.*, 1996 U.S. Dist. LEXIS 7727 (S.D.N.Y. 1996), where the court determined that the *Daubert* analysis was inapplicable to the testimony of an expert safety consultant who based his opinion upon his experience and training in the established field of industrial safety. Alternatively, the court noted that there were established safety engineering principles and practices that have been documented in a variety of published studies upon which the expert had drawn for his opinions; thus, even if *Daubert* applied, his testimony was properly admitted. *Id.* at *12 and *12 n.1. Similarly, in *Waitek v. Dalkon Shield Claimants Trust*, 934 F. Supp. 1068, 1087-89 n.10 (N.D. Iowa 1996), the court, citing *Compton*, held that *Daubert* was not applicable to a doctor's opinions that plaintiff's use of the Dalkon Shield had caused her injuries. The court stated that, since the expert's testimony was based upon his experience and training as a gynecologist and doctor generally, and as plaintiff's doctor, and not based on any particular methodology or technique, the question of the doctor's expertise under *Daubert* would be to the weight of the testimony, not its admissibility. *Id. See also Becker v. National Health Prods., Inc.*, 896 F. Supp. 100, 103 (N.D.N.Y. 1995).

Liriano and *Waitek* exemplify the danger of *Compton* if left unchecked; just a few months after the opinion was published, litigants and courts are citing *Compton* for the

proposition that *Daubert* has no application to opinions from experts who employ no testing or methodology in forming their opinions. Had the experts in *Liriano* and *Waitek* subjected their opinions to testing or peer review, or utilized accepted principles related to industrial safety or gynecology in forming their opinions, the opinions may well have been rejected as unsound. Yet the *Compton* standard allows the district court to abandon any further inquiry once a credentialed expert offers his bottom line opinion based on his experience and training, before determining if there are established engineering or scientific methodology in the field and whether the expert's opinion is grounded thereon. "An expert who supplies nothing but a bottom line supplies nothing of value to the judicial process . . . ." *Mid-State Fertilizer Co. v. Exchange National Bank*, 877 F.2d 1333, 1339 (7th Cir. 1989). "But the courtroom is not the place for scientific guesswork, even of the inspired sort. Law lags science; it does not lead it." *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 319 (7th Cir. 1996). The *Compton* standard allows guesswork, as long as the guesser has impressive credentials.

B. There is Sharp Division in the Circuits Regarding the Standards For Admissibility of Expert Opinion

Other circuit courts of appeal have properly applied the *Daubert* decision and would subject engineering testimony to the same scrutiny as any other scientific evidence. In the Sixth Circuit, an expert testifying as to the cause of a plaintiff's injury on a boat dock was excluded under *Daubert*. *Cook v. American S.S. Co.*, 53 F.3d 733 (6th Cir. 1995). The Court concluded that the expert's testimony was *not* based upon any "scientific, technical, or other specialized knowledge" at all, nor was it based on upon any testing. The Court stated: "It is precisely this kind of testimony that the Supreme Court in Daubert admonished federal courts to screen for scientific validity as a part of the courts' 'gatekeeping function.' " *Id.* at 739. In *American & Foreign Ins. Co. v. General Electric Co.*, 45 F.3d 135 (6th Cir. 1995), the testimony of an elec-

trical engineer expert witness regarding the alleged design defect of a circuit breaker was excluded. The Sixth Circuit reiterated *Daubert's* requirement that courts are to determine whether the principles and methodology underlying expert testimony are valid. *Id.* at 138. *See also Berry v. City of Detroit*, 25 F.3d 1342, 1349 (6th Cir. 1994), *cert. denied*, 115 S. Ct. 902, 130 L.Ed. 2d 786 (1995) (*quoting Daubert*, 509 U.S. at 589) (interpreting the *Daubert* standard to "ensure that any and all testimony or evidence admitted is not only relevant, but reliable").

The Sixth Circuit's holding that opinions that are *not* based on any "scientific, technical, or other specialized knowledge" or any testing must be screened for scientific validity is directly contrary to the Tenth Circuit; *Compton* held that opinions need not be screened *because* they are not tested, and allegedly not based on scientific knowledge.

The Seventh Circuit applies *Daubert* to "the application of well-known instruments of the engineering profession to a particular and not-out-of-the-ordinary application." *Cummins v. Lyle Indus.*, 93 F.3d 362, 367-70 (7th Cir. 1996). In *Cummins*, the Court excluded an expert engineer's testimony because, *inter alia*, he had not published any writing or study concerning the incorporation of any alternative designs into an industrial trim press machine, nor had he conducted "any testing to substantiate his opinion that the alternative test designs feasibly could have been incorporated into the Lyle trim press." *Id.* at 369. Similarly, in *Deimer v. Cincinnati Sub-Zero Prods., Inc.*, 58 F.3d 341, 344-45 (7th Cir. 1995), the Seventh Circuit applied the *Daubert* methodology requirements to uphold the exclusion of an expert engineer because the testimony was not "scientific," as the expert "did not conduct any studies or analysis to substantiate his opinion," and "proffered unverified statements that were unsupported by any scientific method." *See also, Rosen, supra*, 78 F.3d at 318-19 (expert cardiologist's testimony excluded because it was based on only "an insightful, even inspired, hunch," not on "any experi-

mental, statistical, or other scientific data" or "real science."); *O'Connor v. Commonwealth Edison Co.*, 13 F.3d 1090, 1106 (7th Cir. 1994) (upholding exclusion of treating physician's testimony that a plaintiff's cataracts were caused by radiation exposure, because the expert's methodology had "no basis in scientific fact."); *Pries v. Honda Motor Co.*, 31 F.3d 543, 545 (7th Cir. 1994) (biomechanical engineering testimony concerning the design of a seat belt latch was excluded because it was not scientific).

The Eighth Circuit very recently explicitly rejected the notion that *Daubert* "applies only to novel scientific evidence" and is therefore "inapplicable to . . . opinions . . . founded on basis engineering principles." *Peitzmeier v. Hennessy Indus., Inc.*, 97 F.3d 293, 297 (8th Cir. 1996). The Court in *Peitzmeier* upheld the exclusion of an engineer's expert testimony because he had not tested for safety or utility his proposed design changes to a tire-changing machine, and thus he had shown "no factual basis to support an opinion that his design changes are feasible or that they would not hinder the efficacy of [the manufacturer's] present tire-changing model." *Id.* In a similar case, *Pestel v. Vermeer Mfg. Co.*, 64 F.3d 382, 384 (8th Cir. 1995), the Eighth Circuit affirmed the district court's refusal, under *Daubert*, to allow testimony from a mechanical engineering expert with respect to his design concept for a safety bar guard for a stump cutter. The Court noted that the expert had not tested his guard, the design was not reliable or relevant because the concept of the guard was still evolving, and the expert had not submitted his concept to any manufacturers, academicians, or engineering professors for scrutiny. *Id.*

The Eighth Circuit cases cited above and the Seventh Circuit's *Cummins* decision are conceptually indistinguishable from this case. All the cases involve engineer experts who opine that a product is defective, and propose alternative designs. The expert in this case, Larry Bihlmeyer, proposed that the roof of an automobile should deform

no more than 2½ inches in rollover accidents occurring at 50 to 70 miles per hour, and involving impact forces of 48,000 to 71,000 pounds; this standard, labeled "preposterous" by the trial court, would require roof resistance to a force of between 20 and 30 times vehicle weight, produring only half the amount of crush that the federal standard permits at 3,600 pounds. Like the experts in *Peitzmeier, Pestel,* and *Cummins,* Bihlmeyer had not tested his theory for feasibility or efficacy (e.g., how would the weight of such a roof affect performance or rollover characteristics of the automobile), nor subjected his theory to any peer review. The Seventh and Eighth Circuits reject such testimony; the Tenth Circuit admits it.

The Fifth Circuit in *Miska, supra,* affirmed the exclusion of an engineering expert from testifying that an automobile seatback was defective. 1995 U.S. Dist. LEXIS 17197 at *11. The court noted that the expert's opinion was based only on his "expert" credentials, his understanding of events surrounding the plaintiff's collision, and his examination of a model automobile seat. The Court held:

> Without any account of [the engineering expert's] intermediate reasoning or methodology, the validity of that reasoning cannot be tested. If a methodology cannot be falsified, refuted, or tested by any objective means, then it is incapable of meeting the "validity" criterion of Daubert because it can never be subjected to the scrutiny that any "valid" methodology must survive.

Id. The court excluded the "subjective" opinion of the expert, and granted summary judgment in the manufacturers' favor. *Miska* was affirmed by the Fifth Circuit. 96 F.3d 1445.

It is not possible to square the holding of *Compton* with *Miska.* Both cases involve engineers testifying to automobile product defect. The experts employed no testing or methodology to their subjective, personal opinions, and thus the manufacturers of the automobiles had

no way to refute the testimony by objective means. Yet the *Compton* and *Miska* courts came to the opposite conclusion. In *Miska* the conclusion of inadmissibility resulted in summary judgment; in *Compton* the opposite conclusion resulted in a substantial plaintiff's verdict.

District courts also have issued opinions involving expert engineers in direct contrast to the *Compton* holding. *See, e.g., Arrendondo v. Uniroyal Goodrich Tire Co.*, 1995 U.S. Dist. LEXIS 19943 (D. Ariz. 1995) (properly credentialed tire failure expert's testimony excluded because it was based solely on his professional experience, and was unsupported by reliable scientific or technical knowledge); *Hopkins v. NCR Corp.*, 1994 U.S. Dist. LEXIS 17273 at *20, 22 (M.D. La. 1994) (court ruled that the factors set out in *Daubert* with respect to "scientific" testimony can be readily adapted to "technical testimony"; court held: "In a case where the expert opinions could be substantiated by scientific or similar methodology, the factors expressed in *Daubert* are particularly relevant to measure the reliability of the expert's testimony"); *Roback v. V.I.P. Transp., Inc.*, 1994 U.S. Dist. LEXIS 14054 (N.D. Ill. 1994) (applying *Daubert* and its factors to engineer who testified that a cruise control malfunctioned); *Stanczyk v. Black & Decker, Inc.*, 836 F. Supp. 565 (N.D. Ill. 1993) (employing *Daubert*'s factors of peer review, publication, testing, potential rate of error, and general acceptance to determine the admissibility of an engineering expert's testimony).

The list of cases supporting application of *Daubert* standards to engineers and other scientific testimony is growing weekly, and only a few are presented here. *Compton* and its progeny are in hopeless conflict with these decisions. Courts and litigants now face the uncertainty whether *Daubert* applies to cases involving applied science. In those lower courts where *Compton* is followed, jurors having no scientific expertise are asked to determine whether engineering or other scientific testimony is reliable enough to be given credence; the court must de-

termine the question of law for them, namely, is the expert testimony reliable? The Court should grant certiorari to resolve the conflict between the courts and to dissuade the inevitable forum shopping that will result from such conflict.

II. RULE 702 AND *DAUBERT* APPLY TO EXPERT TESTIMONY IN A WELL-DEFINED FIELD OF ENDEAVOR ENCOMPASSING RECOGNIZED ANALYTICAL METHODOLOGY OR TECHNIQUES

Compton holds that "application of the Daubert factors is unwarranted in cases where expert testimony is based solely upon experience or training." *Compton* at 1518. Amici disagree; the requirements of both *Daubert* and Rule 702 apply to experts in fields with well-established methodologies and principles.

Compton permits any expert to pass through the gate unchallenged by the gatekeeper if the expert avoids the analysis required by his field of endeavor—claiming his opinion is based on his training and experience, not technical or scientific methodology. *Compton* releases the floodgates for the admission of opinion testimony for which no legitimate foundation exists. "Something doesn't become 'scientific knowledge' just because it's uttered by a scientist; nor can an expert's self-serving assertion that his conclusions were 'derived by the scientific method' be deemed conclusive." *Daubert II*, *supra*, 43 F.3d at 1315-16. On remand in *Daubert*, the 9th Circuit analyzed the testimony of the proposed experts, experts whose impressive credentials were lauded by the Court, and concluded that where they had been presented only with the experts' qualifications, conclusions and assurances of reliability, under *Daubert*, "That's not enough." *Daubert II* at 1319. Yet, under *Compton*, self-validated opinions suffice.[8]

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[8] Amici do not refer to those situations where personal experience, observations, or training are the only recognized methods and techniques for the expert opinion, but to those defined areas where there are recognized procedures, methods or techniques for use in analysis. *See, e.g., United States v. Muldrow*, 19 F.3d 1332, 1338

A. Rule 702 and *Daubert* Require Scrutiny of the Expert's Methodology

The question that would be answered by the grant of a writ of certiorari is the scope of applicability of *Daubert* and Rule 702 of the Federal Rules of Evidence. The analysis starts with Rule 702, which provides:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

Credentials alone are not and cannot be the ticket for admission of expert evidence. The Rule 702 reliability inquiry does not end with the expert's impressive credentials; it only begins there.

Daubert and Rule 702 have two prongs, which must be satisfied before the court addresses the fit of the opinion. First, the expert's qualifications must be established and, second, there must be an inquiry into what is behind each of the expert's opinions. Any time an expert recites "my opinion is based on my training and experience," the expert self-validates the opinion and seeks to escape objective analysis of its foundation. That assertion cannot be sufficient to establish the evidentiary reliability of expert testimony. Without a *Daubert* analysis, personal opinion, not expert opinion, is being offered. *See Turpin v. Merrell Dow Pharmaceuticals, Inc.*, 959 F.2d 1349, 1360 (6th Cir. 1992). The "knowledge" requirement of Fed. R. Evid. 702 for any kind of expert testimony demands more than subjective belief or unsupported speculation. *Daubert*, 509 U.S. at 590. Personal observations, without more are "not the stuff of expert opinion." *United States v. Rice*, 52 F.3d 843, 847 (10th Cir. 1995).

(10th Cir. 1994), *cert. denied*, 115 S. Ct. 175, 130 L. Ed. 2d 110 (1994) (court used conventional Rule 702 approach with police officer with specialized knowledge of drug trafficking, but the *Daubert* analysis to testimony of forensic chemist.).

Compton failed to apply the second *Daubert* prong, lifted directly from Rule 702, which requires that an expert's testimony "assist the trier of fact to understand or determine a fact in issue." *Daubert*, 509 U.S. at 591. This requires "a preliminary assessment of whether the reasoning or methodology underlying the testimony . . . properly can be applied to the facts at issue." *Id.* Since, in this case, there is no reasoning or methodology underlying Bihlmeyer's testimony, the jury was offered only a personal opinion from the witness. That personal opinion is not reliable, has no relevance and is likely to confuse the jury even if subjected to vigorous cross examination. Improperly applied science is not admissible under *Daubert*'s second prong because it "cannot assist the trier of fact." *United States v. Davis*, 40 F.3d 1069, 1074 n.6 (10th Cir. 1994).

The gatekeeping role of the judge is to guard the jury from considering as proof pure speculation presented in the guise of legitimate scientifically-based expert opinion. *Joiner v. General Electric Co.*, 78 F.3d 524, 530 (11th Cir. 1996). The gate should be shut before the opinion gets to the jury. Cross examination, no matter how skillful, is not a substitute for the court's scrutiny of the reliability of the opinion. Rule 702 and *Daubert* require such scrutiny of scientific evidence offered by experts.

B. *Daubert* Applies to "Scientific, Technical or Other Specialized Knowledge," Which Includes Engineering or Applied Science Expert Opinion

The Tenth Circuit in *Compton* placed Bihlmeyer's testimony beyond the purview of *Daubert* by accepting plaintiff's counsel's argument that such testimony was "non-scientific." 82 F.3d at 1519. The Tenth Circuit attempts to divorce the field of engineering from science, even though engineering is "the application of mathematical and scientific principles to practical ends, as the design, construction, and operation of economical and efficient structures, equipment, and systems." *Webster's II New College Dictionary*, 1995. Similarly, courts have defined

engineering to be the "art and science by which the mechanical properties of matter [or energy] are made useful to man in structures and machines." *Camp Dresser & McKee, Inc. v. Home Ins. Co.*, 568 N.E.2d 631, 635 (Mass. App. 1991). Kansas, the state in which the engineer expert in this case testified, defines "professional engineer" as:

> a person who is qualified to practice engineering by reason of special knowledge and use of the mathematical, physical and engineering sciences and the principles and methods of engineering analysis and design . . ..

K.S.A. § 74-7003(h). Thus, engineering evidence cannot be "non-scientific." No valid engineering opinion can be expressed that does not have the physical sciences as its basis. Any engineering opinion, even if based in part on training and expertise, should utilize valid engineering principles and methodology; the engineer cannot divorce science and banish it from the field.

Respondent admits the scientific nature of Bihlmeyer's opinion in his Opposition Brief, stating: "Much of Bihlmeyer's knowledge is based on scientific principles (force dynamics, strength analysis, strength of materials) . . .." *See* Respondent's Opposition Brief, p. 17.

Even those cases that apply *Daubert* only to "scientific" opinion would apply the analysis to Bihlmeyer's testimony, since scientific opinion is involved. However, even if the court had been correct in defining Bihlmeyer's testimony as "nonscientific," *Daubert* does not grant a waiver of scrutiny or apply a lesser reliability standard to the testimony of experts having technical or other specialized knowledge:

> . . . Rule 702 . . . clearly contemplates some degree of regulation of the subjects and theories about which an expert may testify. *"If scientific,* technical, or other specialized *knowledge will assist the trier of fact* to understand the evidence or to determine a fact in issue" an expert "may testify *thereto."* The subject of an expert's testimony must be "scientific

> . . . knowledge." n.8. The adjective "scientific" implies a grounding in the methods and procedures of science. Similarly, the word "knowledge" connotes more than subjective belief or unsupported speculation. The term "applies to any body of known facts or to any body of ideas inferred from such facts or accepted as truths on good grounds." *Webster's Third New International Dictionary*, p. 1252 (1986).

Daubert, 509 U.S. at 589-90 (emphasis in original). Thus, this Court makes clear that the words "scientific, technical, or other specialized" are adjectives that modify the word "knowledge." The Court noted that the word "knowledge" connotes "more than subjective belief or unsupported speculation."

Daubert provides no justification for treating technical knowledge differently than scientific knowledge, a point made clear by Footnote 8:

> Rule 702 also applies to "technical, or other specialized knowledge." Our discussion is limited to the scientific context because that is the nature of the expertise offered here.

Daubert, supra, 509 U.S. at 590 n.8. That the court discussed methodology and technique in the context of "scientific knowledge" does not mean that experts having "technical, or other specialized knowledge" can avoid the *Daubert* requirements of "appropriate validation," i.e., "good grounds," by relying on training and experience to support their opinion. *See Daubert*, 509 U.S. at 590. Indeed, the Court's defining the word "knowledge" as requiring more than subjective belief or unsupported speculation indicates an intent to require that all experts having scientific, technical, or other specialized knowledge meet the *Daubert* requirements. *Daubert* interpreted Rule 702 as it would any other piece of legislation. *See id.* at 588-91. To separate out one adjective from two other modifiers of the word "knowledge" and give that type of testimony special treatment defies every standard of legislative interpretation.

Courts other than *Compton* have acknowledged that the scope of Rule 702 and *Daubert* extends beyond "scientific knowledge." In *United States v. Rincon*, 28 F.3d 921, 923 n.3 (9th Cir. 1994), *cert. denied*, 155 S. Ct. 605, 130 L.Ed 2d 516 (1994), the Ninth Circuit applied both prongs of *Daubert* to an expert in eyewitness identification, stating: "Thus, as in Daubert, . . . we limit our discussion to the 'scientific knowledge' aspect of Rule 702, *even though that rule also applies to 'technical, or other specialized knowledge.'*" (emphasis added.) In *Fellner v. Supreme Corp.*, 1995 U.S. Dist. LEXIS 2166 (D. N.J. 1995), which involved an engineering expert who testified as to the design of a truck body, the court cited *Daubert* for the proposition that courts have a duty to make a factual inquiry as to whether the facts and data relied on by experts are reliable "regardless of whether the expert testimony is scientific or technical." Id. at *12 n.1. *See also, Ohio ex rel. Montgomery v. Louis Trauth Dairy, Inc.*, 1996 U.S. Dist. LEXIS 6667 at *14 (S.D. Ohio 1996) ("Although the proffered experts' testimony may not qualify as 'scientific knowledge,' the reasoning of Daubert still applies.")

C. Credentials and a "Logical Basis" Are Not Enough to Satisfy *Daubert*

Compton encourages a party to hire an expert witness with good credentials and to extract personal opinion from the expert, thus lowering the admissibility hurdle. Credentials alone are not enough to satisfy *Daubert*. A court "asked to admit scientific evidence must determine whether the evidence is genuinely scientific, as distinct from being unscientific speculation offered by a genuine scientist." *Rosen, supra*, 78 F.3d at 318. "Rule 702 is designed to ensure that, when expert witnesses testify in court, they adhere to the same standards of intellectual rigor that are demanded in their professional work." *Cummins, supra*, 93 F.3d at 369; *Rosen, supra*, 78 F.3d at 318-19. "If they do, their evidence, if relevant, is admissible, even if the particular methods they have used in arriving at their opinion are not yet accepted as canonical in their branch

of the scientific community. If they do not, their evidence is inadmissible no matter how imposing their credentials." *Id.*

Compton contradicts *Daubert* when it approved of a pre-*Daubert* case, *Jones v. Otis Elevator Co.*, 861 F.2d 655, 663 (11th Cir. 1988), for the proposition that "as long as a logical basis exists for an expert's opinion . . . the weaknesses in the underpinnings of the opinion go to the weight and not the admissibility of the testimony." Logical reasoning may produce a testable hypothesis, but it cannot supplant the methodology employed by the field to test the hypothesis. Under *Daubert*, a "logical basis" is insufficient if it is based on "subjective belief or unsupported speculation." 509 U.S. at 590. To be admissible, an opinion must have more for its basis than the experience and training of an expert; if it be engineering testimony, it must be grounded in the recognized methods and principles of engineering. Otherwise, the "knowledge" imparted to the jury is nothing more than unsubstantiated personal opinion.

Even before *Daubert* it was not sufficient for an expert merely to show that a logical basis exists for an expert's opinions. *See, e.g., DeLuca v. Merrell Dow Pharmaceuticals Inc.*, 911 F.2d 941, 944 (3d Cir. 1990), *on remand*, 791 F. Supp. 1042 (D.N.J. 1992), *aff'd without op.*, 6 F.3d 778 (3d Cir. 1993) (court concluded expert's methodology so unreliable as to warrant exclusion). Something may appear logical but not be supported by good science or good engineering. The fallacy of the apparently logical opinion may not surface if the expert is not required to base the opinion on sound methodology in the applicable field. To give *Daubert* its due, the failure to utilize any technological methodology requires more extensive scrutiny of the expert's testimony, not less.

D. *Compton*'s Relinquishment of Trial Courts' Gatekeeper Role Encourages Unreliable Expert Testimony

The end result of the Tenth Circuit's decision in *Compton* is that a qualified engineering expert who employs no

engineering reasoning or methodology, and merely expresses his personal opinion, can testify to any opinion he pleases. *Compton* cloaks an expert witness with apparent authority simply by virtue of his expertise. It allows an expert to testify to his opinion without any demonstration that a reliable method has been used and that the method has been faithfully followed by the expert. As demonstrated above, the commandments of both *Daubert* and Rule 702 forbid an expert in the applied sciences from abandoning any pretense of establishing the reliability of his opinion.

Society is not served by the *Compton* standard of admissibility and the judgments resulting from it:

> [T]wo of the primary rationales behind products liability are to provide deserving compensation for the injured party when the defendant is at fault and to deter further misconduct. However, neither of these policy goals are served when counsel and the courts allow an unmerited expert opinion to "speak by" them. The primary rationales of deserved compensation and deterrence are then frustrated since true "fault" is not really established and there is no real misconduct to deter in the future. When shallow expertise is at the core of a finding of liability, the system has merely created a "coin-flipping" aberration.

Michael Hoenig, *Drawing the Line On Expert Opinions*, NYDJ, p.1 (May 22, 1985). "The too-frequent surfacing of the ubiquitous journeyman expert who will fashion his credentials as well as his conclusions 'to fit the crime' is lamentably predictive of a superficial conclusion." W. Donaher, H. Piehler, A. Twerski & A. Weinstein, *The Technological Expert in Products Liability Litigation*, 52 Tex. L. Rev. 1303, 1311-12 (1974).

CONCLUSION

The *Compton* decision's misunderstanding of *Daubert* is likely to cause confusion among trial courts, jurors and litigants. The standard of analysis to be applied to expert opinion is an issue facing courts on a daily basis. There is a sharp division among the lower courts regarding the proper standard for the admission of expert testimony in cases involving applied science, technical, or other specialized knowledge. The facts of *Compton* will allow the Court to give much needed guidance on the issue of the applicability of *Daubert* to areas of endeavor outside of "pure" science. The Court should accept Petitioners' Petition for a Writ of Certiorari, to resolve the sharp division among the courts.

Respectfully submitted,

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